

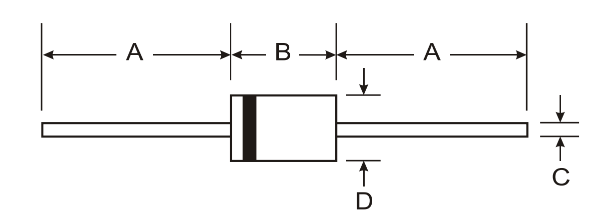
# SR102 - SR106

## HIGH CURRENT SCHOTTKY BARRIER RECTIFIER

NOT RECOMMENDED FOR NEW DESIGN,
USE SB1X0 SERIES

## Features

- High Current Capability and Low Forward Drop
- High Surge Capacity
- Guard Ring for Transient Protection
- Low Power Loss, High Efficiency




## Mechanical Data

- Case: DO-41, Molded Plastic
- Plastic Material: UL Flammability Classification Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Axial lead, Solderable per MIL-STD-202, Method 208
- Polarity: Cathode band
- Weight: 0.35 grams (approx.)

| DO-41 | | |
|---|---|---|
| **Dim** | **Min** | **Max** |
| **A** | 25.4 | |
| **B** | 4.1 | 5.2 |
| **C** | 0.71 | 0.86 |
| **D** | 2.0 | 2.7 |
| **All Dimensions in mm** | | |

## Maximum Ratings and Electrical Characteristics

@ $T_A$ = 25 C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | SR102 | SR103 | SR104 | SR105 | SR106 | Unit |
|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 20 | 30 | 40 | 50 | 60 | V |
| Maximum RMS Voltage | $V_{RSM}$ | 14 | 21 | 28 | 35 | 42 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 20 | 30 | 40 | 50 | 60 | V |
| Maximum Average Forward Rectified Current @ Lead Temperature (TL) measured 9.5mm lead length @ $T_L$ = 75 C / @ $T_L$ = 100 C | $I_{(AV)}$ | 1.0 | | | 1.0 | | A |
| Peak Forward Surge Current 8.3ms half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 25 | | | | | A |
| Maximum Forward Voltage @ 1.0A | $V_F$ | 0.55 | | 0.60 | 0.70 | | V |
| Maximum Average Reverse Current at Peak Reverse Voltage @ $T_A$ = 25 C / @ $T_A$ = 100 C | $I_R$ / $I_R$ | 1.0 / 10 | | | | | mA |
| Typical Thermal Resistance (Note 1) | $R_{JL}$ | 15 | | | | | K/W |
| Typical Total Capacitance (Note 2) | $C_T$ | 110 | | | 80 | | pF |
| Storage and Operating Temperature Range | $T_J$, $T_{STG}$ | -65 to +150 | | | | | C |

Notes:
1. Thermal Resistance from Junction to Ambient with Vertical PC Board Mounting, 1.27mm Lead Length.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V.

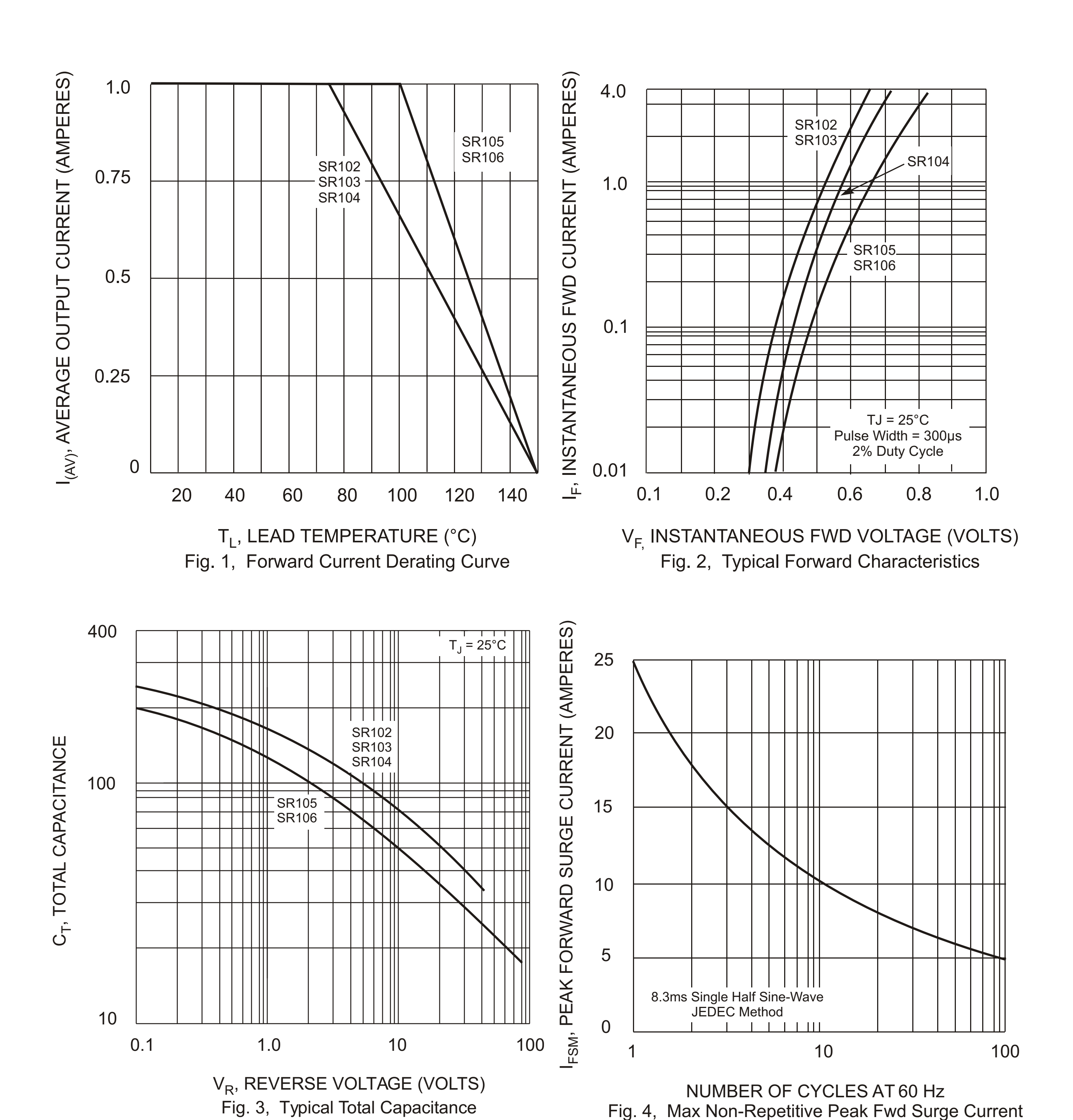


Fig. 1, Forward Current Derating Curve

Fig. 2, Typical Forward Characteristics

Fig. 3, Typical Total Capacitance

Fig. 4, Max Non-Repetitive Peak Fwd Surge Current

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